

# NEOSEC

New England  
Ocean Sciences  
Education Collaborative

## Ocean Literacy Summit Speaker biographies

Friday, November 7 2008

Boston University School of Management

[in session order]

**Rick Murray**, Professor of Earth Sciences, is the Director of the Boston University Marine Program (BUMP) and as such is interested in climate and ocean literacy from a number of perspectives. His research interests are in geochemical paleoceanography, marine geology, and coastal biogeochemistry.

**Susan Ryan** is the Chair of NEOSEC and the Education and Outreach Coordinator for the Census of Marine Life - Gulf of Maine Area Program at the University of Southern Maine. Her background is in geology and anthropology and is currently studying Communications at the USM Muskie School for Public Policy. Her current interests include promoting sustainability through ecosystem-based management and connecting marine scientists with educators and students.

**Dr. Kerry Emanuel** is a professor of atmospheric science at the Massachusetts Institute of Technology, where he has been on the faculty since 1981, after spending three years as a faculty member at UCLA. Professor Emanuel's research interests focus on tropical meteorology and climate, with a specialty in hurricane physics. His interests also include cumulus convection, and advanced methods of sampling the atmosphere in aid of numerical weather prediction. He is the author or co-author of over 100 peer-reviewed scientific papers, and two books, including *Divine Wind: The History and Science of Hurricanes*, recently released by Oxford University Press and aimed at a general audience, and *What We Know about Climate Change*, published by the MIT Press.

**Dan Barstow** is Director of TERC's Center for Earth and Space Science Education, and national chair of the Climate Literacy Network. He has been a PI or co-PI on several NSF, NOAA and NASA-funded projects, including Visualizing Earth, ISS EarthKAM, GLOBE, Windows on Earth and the National Conference on the Revolution in Earth and Space Science Education. He is a leading voice for state and national policy reform to "make the revolution real" in Earth and space science education. His work on climate literacy marshalls the work of scientists, educators and state and national policy-makers to infuse climate literacy into Earth science and environmental education.

**Sarah Schoedinger** is a senior program manager for NOAA's Office of Education where she manages the Environmental Literacy Grants program, oversees a professional development program for NOAA's educators, and serves as a liaison to organizations with missions and programs complementary to NOAA's. Sarah is a past president of the National Marine Educators Association (NMEA). Since 2004 Sarah has been one of the leaders of campaign to increase ocean literacy, beginning with the workshop to define ocean literacy and identify the essential principles and fundamental concepts for grades K-12 to the promotion of these concepts at the national level. Prior to coming to NOAA, Sarah was the Education Director of the Consortium for Oceanographic Research and Education (CORE). Ms. Schoedinger is a 1992 graduate of St. John's College and holds a Master of Science degree in marine studies from the University of Delaware.

**Pat Harcourt** is K12 and Teacher Training Coordinator at Waquoit Bay National Estuarine Research Reserve, where she works with scientists and teachers to develop and present classes and courses on coastal ecology, coastal processes, climate change, and renewable energy. Pat is especially interested in promoting the use of marine and coastal data among teachers and students.

**Jennifer Albright** is the graduate teaching assistant for the COSEE-OS/UMaine undergraduate/graduate course entitled "Teaching Science by Ocean Inquiry" as well as the Summer Teacher Workshop. I also help in the development of the COSEE-OS Ocean Climate Interactive (a multimedia tool providing ocean-related content to teachers, students, and the general public with the aim of increasing ocean awareness and literacy). Annette is a Senior Marine Education Scientist at the University of Maine. Currently Director of COSEE-Ocean Systems, her long-term goal is to help the COSEE Network reach rural and inland audiences. Annette also

serves as the education lead for NASA's upcoming Aquarius mission (2010 launch) which will measure global ocean surface salinity.

**Christy Herren** is a research associate with Center for Ocean Sciences Education Excellence - Ocean Systems at the University of Maine's Darling Marine Center. She has research experience at the Monterey Bay Aquarium Research Institute, and teaching experience with college undergraduates in deep sea biology. She earned a PhD in Marine Sciences from the University of CA Santa Barbara. Christy is passionate about connecting scientists and educators in her current position through novel multimedia interactives to provide access to new discoveries in ocean sciences.

**John Anderson** is Director of Education at the New England Aquarium in Boston. He wonders each day how to better engage public audiences and school students in learning about the wonders and the changes in the world's oceans, and he hopes the NEOSEC conference will provide new ideas.

**Pam DiBona** is a Project Manager for Programs, Exhibits and Planning at the New England Aquarium, helping to implement the Aquarium's Strategic Action Plan through partnerships and projects. She also staffs the New England Ocean Sciences Education Collaborative, where she applies her long experience in building and supporting networks, coalitions, collaborations, and partnerships. Sometimes she applies her degrees in biochemistry and environmental microbiology!

Before joining Sea Grant in 1999, **Paul Anderson** spent 10 years working for the Maine Department of Marine Resources, first as the chief microbiologist and then as the director of the Public Health Division. He has been involved in all aspects of seafood safety and environmental monitoring. At Sea Grant, he is the director of the program and leader of the Marine Extension Team, a group of 10 Sea Grant and Cooperative Extension staff members who are based all along the Maine coast. In his free time, Paul enjoys his three sons, organic gardening, and playing music with his friends in midcoast Maine.

**Campbell "Buzz" Scott** was raised on Matinicus Island, Maine. He spent 17 years as a commercial fisherman in the Gulf of Maine, two years on supply ships in the Gulf of Mexico, four years working for the United States Antarctic Program as a marine technician and marine projects coordinator, sailing on scientific research ships around Antarctica, and most recently spent eight years sailing up and down the west coast of the United States, Mexico and Canada as a pilot and mechanical technician flying a remotely operated vehicle (ROV) for the Monterey Bay Aquarium Research Institute in Moss Landing, California.

**Jeffrey S. Rosen** is Vice President for the Environmental Information Services Group for Clancy Environmental Consultants. Mr. Rosen has over Thirty (33) years of experience in conducting environmental research. His career has focused on processing data into useful information to support effective environmental management. He has led teams in the development of information systems and the analysis and interpretation of the resulting data for many NOAA organizations including: The National Marine sanctuaries Program, the Stellwagen Bank, National Marine Sanctuary, the Coastal Services Center, the national Status and Trends Program and the National Marine Fisheries Service. He also served as Senior Information Manager for the Environmental Monitoring and Assessment (EMAP) Coastal Marine Group, and is leading the Team that is developing information systems and performing data integration and analysis for the Papahānaumokuākea Marine National Monument (PMNM) based in Honolulu, Hawaii, the second largest marine sanctuary in the world.

**Riley Morse** is a Product Developer at the Gulf of Maine Ocean Observing System (GoMOOS). She is primarily responsible for the development and maintenance of web-delivered ocean information products. She has over 10 years of experience designing and developing web-based applications, with a focus on front-end design and user interaction. She also brings the experience of a formal undergraduate (Eckerd College) and graduate (University of Rhode Island) education in marine biology and fisheries science and over 5 years experience in research and program management of environmental initiatives. Riley is a freelance scientific illustrator, and has had her work published in field guides, fisheries bulletins and scientific journals.

**Lauren Rader** is a Marine Science Educator for Project Oceanology in Groton, CT. Ms. Rader received her undergraduate and graduate degrees in Biology with a Specialization in Marine Science from Boston University. She holds a Connecticut Teachers Certification in Biology and has more than ten years of experience in both formal and informal science education. In addition to her instructional role in shipboard, shoreline, laboratory and classroom settings, Ms. Rader's responsibilities include curriculum development and coordination of grant-funded programs. Ms. Rader is the Past-President of the Southeastern New England Marine Educators (SENEME) and is on the Board of the National Marine Educators Association as SENEME's Chapter Representative.

**Julianne Mueller-Northcott** is a science teacher at Souhegan High School in Amherst, NH. She has taught Earth and Life Systems Science and has started a marine science program at the school. She tries to make her curriculum as hands-on as possible to engage students. She plans lots of field trips to the coast and also has students maintain a salt-water aquarium in her classroom.

**Charles "Stormy" Mayo** is a Senior Scientist at the Center for Coastal Studies in Provincetown, on Cape Cod. Dr. Mayo directs the habitat studies program at the Center, heading up an effort to understand the interaction between endangered large whales and the ecosystems that support them. In recent years he has directed an investigation of the interaction between food resources and northern right whales with a particular emphasis on the impact of anthropogenic change on plankton patches. His technical work has ranged from complex computer modeling of foraging movements to the development of new techniques for documenting whale behavior and zooplankton distribution. Additionally Dr. Mayo is also known for his efforts to reduce whale mortality caused by entanglement in fishing gear through the development of new management techniques and the development of methods to rescue entangled whales at sea.

**Jake Levenson** is the Communications Manager of the Global Whale Protection Program at the International Fund for Animal Welfare (IFAW pronounced eye-fawe) which works on protect whales from entanglement, ship strikes, ocean noise pollution, and commercial exploitation. His work involves coordinating global communications strategies targeted towards encouraging international organizations, corporations and individual governments to protect whales.

**Nick Wolff** received a M.S. in Biological Oceanography from the University of Rhode Island, and is currently a research associate at the University of Southern Maine. For the Census of Marine Life - Gulf of Maine Area Program, he is responsible for the data management, and helps generate mapping and visualization products. He is currently involved with an exciting research project looking at the habitat preferences and feeding behavior of whales in the Gulf of Maine. His interests include the impacts of climate change, and the intersection of biology and physics.

**Robin Hadblock Seeley**, Ph.D is Assistant Director for Academic Advising at the Shoals Marine Laboratory on Appledore Island ME (Cornell University/UNH) and a senior research associate at Cornell. Her interests include 1) long-term monitoring of invasive species and climate change in the Gulf of Maine, and 2) promoting field experiences and research opportunities in ocean science for high school and university students.

**David J. Welty** has been teaching science in Fairhaven, Ma along side the New Bedford Harbor and acting as the 6-12 Science coordinator for 9 years. He originates from the sea of cornfields in Ohio and has long been pulled to the sea shore. Since obtaining a Ph.D. in molecular biology and biochemistry and becoming a high school science teacher, he has become immersed in ocean science literacy and hands on inquiry for his students.

**Abbey Spargo** is a High School Biology teacher who has conducted (k-16) teacher professional development workshops in Marine Sciences and Oceanography. She also has experience teaching Biology at the AP level. She is interested in promoting ocean literacy principles and creating environmental stewards in both students and the general public.

**Mark Smith's** professional experience includes the comprehensive design, construction, operation and administration of world-class zoological, educational and research institutions including: Manager / Scientific liaison / Curator at Sea World Australia; Director of animal husbandry and plant operations at L'Aquàrium de Barcelona, Spain; Director of animal husbandry and plant operations at the Oceanário de Lisboa, Portugal. Mark is currently the Executive Director of the Ocean Explorium at New Bedford Seaport. Mark initiated and co-organized the 1st International Elasmobranch Husbandry Symposium and was senior editor of the seminal Elasmobranch Husbandry Manual. Mark has a Bachelor of Biology from Charles Sturt University, Brisbane and a Master of Zoology from the University of Queensland, Australia.

**Jack Crowley** is a Co Director of the Connecting Oceans Teacher Academy at the Ocean Explorium at New Bedford Seaport and a Science Education Program Specialist for the Center for University, School and Community Partnerships at UMass Dartmouth. Jack has been teaching k-16 classes for over forty years and has won numerous science teaching awards including; the National Marine Educators Association's Educator of the Year Award, The Massachusetts Department of Marine Fisheries Belding Environmental Educator of the Year Award, The Northeast Governors' Council Marine Educator of the Year Award and a Massachusetts Department of Education Lucretia Crocker Teaching Fellowship for Science Education. Jack has been Executive Director of Massachusetts Marine Educators since it's inception in 1969 and along with the University of Massachusetts, Project Oceanology in Connecticut and the new Ocean Explorium at New Bedford Seaport has been involved with creating new science and technology education outreach opportunities to improve science education in k-12 schools with a special emphasis on the Southcoast of New England.

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**Tom Trott** is Associate Professor of Biology at Suffolk University where he teaches ecology, animal behavior, invertebrate zoology, and scientific writing. An historical ecologist, he researches marine community ecology of near shore habitats along the coast of Maine with focus on Cobscook Bay. He is involved in regional and global initiatives looking at sliding baselines and ecological change. For the last 6 years, he has been a primary investigator and on scientific advisory committees for the Census of Marine Life Gulf of Maine Area, Natural Geography in Shore Areas, History of Marine Animal Populations, and History of the Near Shore Programs.

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